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Enterprise  
Spotlight

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or operational databases, managed by a variety of different database or file management systems on mainframe and other computing platforms. Reporting and analysis tools do exist for such systems, but there are many good reasons for establishing a separate read-only data warehouse. Unlike a traditional database, which is organized around the functions of the organization, such as bill-paying for instance, a data warehouse is organized around particular subjects of interest to the organization. It is updated less

## Data Warehousing

### Technology Overview

Data warehousing is a relatively new concept arising from the growing need to provide accurate and actionable information to decision makers in a timely fashion. In general, the concept refers to the physical or logical gathering of data from multiple heterogeneous databases for enterprise wide data inquiry access. Typically, information stored on production systems which focus on day-to-day transactions is not easily convertible to management reports. The data warehouse, when properly designed and constructed, extracts the information and puts it into a form that can be easily understood and interpreted by the people who need to make decisions.

### Why Warehouse?

Organizations typically maintain many loosely related transactional

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# ISD News & Views

Information Services Division

A Newsletter Dedicated To Information Technology In The State Of Montana

frequently than a transactional database, and in some cases is not updated at all. To fulfill their potential, data warehouses must be designed to answer the questions managers may wish to ask.

## Using the Warehouse

Once the warehouse is constructed, the task of extracting information begins. The importance of choosing the right tools to accomplish this is essential, since the users are often managers who are not computer professionals. Tool choice should be based upon the type of reporting and analysis required. Tools should be chosen to handle frequently required tasks such as: production and ad-hoc reports; data queries and comparison analyses; and "data mining" to uncover patterns hidden within the data.

## Security and Privacy

Data warehousing can raise regulatory and legal issues. Today's transactional databases usually retain

data for limited periods of time, with frequent purging and archiving. Any initiative to centralize large amounts of information integrating and linking databases from several different sources requires special care to insure that security and privacy issues are addressed.

## Cost Justification

The hardware and software needed to establish a data warehouse may cost anywhere from several thousand to many millions of dollars. A small warehouse may be focused on a particular subject with the data being derived from a small number of source databases. A large data warehousing system capable of supporting hundreds of users will require large, massively parallel computers where many processors can speed the search. The software portion of the expense will increase as well to accommodate the increased complexity.

## Current Use of Technology

Warehousing has been spreading in the private sector in such transaction-intensive industries as retailing, insurance, and banking. Private sector groups have found that data warehousing enables sizeable improvements in decision making that can produce bottom-line payoffs.

It's beginning to gain a foothold in the public sector as well, but is still a very novel idea in government. Inquiries reveal a dozen projects at the federal level that would fit the "data warehousing" definition. These include the Decision Support System used in the Office of the Chief of Staff at the Army Reserve, the National Science Foundation's

Administration and Programs Data Warehouse, the Logistics Data Warehouse used in the office of the Army's deputy chief of staff for logistics, the Federal Deposit Insurance Corporation (FDIC), and in the Office of the Assistant Secretary of Transportation for Budget and Programs. A true pioneer in federal data warehousing efforts is the Naval Surface Warfare Center in Dahlgren, Virginia. The center's warehousing initiative has helped its information group keep pace with customer demands despite declining budgets.

At the state level, the State of Massachusetts is developing a central electronic Information Warehouse to house state-wide financial and personnel information, and the Georgia Institute of Technology is developing the Constituency Information System (CIS) data warehousing project which is designed to track fund-raising and alumni activities.

For further information contact Dan Mossman of Computing Policy and Development at 444-1219, ZIP! or E-Mail at [dmossman@mt.gov](mailto:dmossman@mt.gov).

## Earthquake Mitigation Information

### The Disaster & Emergency Services Division

Collapsed structures. Severed utility lines. Devastated roadways. Emotional traumas. These are some of the conditions we expect to find following an earthquake. One

## Calendar of Events

- October 10  
PSCIF, 1:00 pm, APCO Missoula
- October 15  
SEC, 2 pm, DPHHS, Auditorium
- October 25  
Governor's Blue Ribbon Task Force  
10:00 am, Rm. 108 Capitol
- October 29  
9-1-1 Advisory Council, 1:00 pm,  
Rm. 312-1, Capitol
- November 6  
ITMG, 8:30 am, Rm. 111, Metcalf
- November 7  
PSCIF, 1:00 pm, Missoula
- November 12  
ITAC, 8:30 am, Rm. 111, Metcalf
- November 19  
SEC, 2:00 pm, DPHHS Auditorium
- November 22  
Governor's Blue Ribbon Task Force  
10:00 am, DPHHS Auditorium

repercussion you may not have thought of is damaged productivity. Although you cannot put a price on this type of damage, its loss can significantly disrupt or cease operations. For all of you who have not previously considered the consequences of an earthquake, this may surprise you. The most important part of our businesses is the information we have. Billing. Inventory. Payroll. Where is this information stored? In your computers! During an earthquake your computer systems can be thrown, smashed, dropped, water damaged or burned. Systems backups are essential in any business, but there are other ways to ensure your computer has a better chance for surviving an earthquake. Some of the easiest and financially efficient methods include Velcro, fasteners, and motion resistant mats. Strips of sticky-back Velcro can be purchased and used to secure computers, monitors and keyboards to desks. This method works well, but if you continually move your computers around, consider fasteners instead. Fasteners, "Thumb Lock" for instance, have been touted as a particularly effective means for securing desktop computer equipment. "Thumb Locks" consist of a patented flexible locking strap held at each end by small plastic fasteners. These are secured with adhesive pads (harmless to desks surfaces) that are capable of holding up to 400 pounds. They feature a quick release lock, making cleaning, servicing and relocating an uncomplicated task. Motion resistant mats (rubberized shelving "paper" is the same thing) are ideal for keyboards. The main purpose of these mats are to keep keyboards from sliding. These mats work well and are easily relocated; however, they do not hold against vertical thrust and should probably be reinforced with some type of fastener.

## *It's that easy!*

We know Montana is due for a significant earthquake. Consider how devastating it would be if you lost all of your automated information. Could your business continue to operate? How long would your school take to recover? Is your personal information protected? Do you have time to *redo everything*? A few simple mitigation efforts could minimize the disruptions you may face following an earthquake.

For further information contact Monique Lay of Disaster and Emergency Services at 444-6950, ZIP! or E-Mail at [m Lay@mt.gov](mailto:m Lay@mt.gov).

## Windows 95 Is Now a State Standard

Effective September 1, 1996, after several months of discussions, meetings, and intensive testing by ISD, Windows 95 has been accepted as a state standard PC desktop operating system. Windows 95 will now be fully supported by ISD, along with DOS and Windows 3.1. Windows 95 can be purchased from Central Stores - contact Jim Nelson at 444-4514 for details. Training is being made available at the Helena College of Technology - contact the HCTUM at 444-6821 for training questions.

For support of Windows 95 contact the ISD Customer Support Center at 444-2000. Your call will be directed to available support staff. ISD's End User Systems Support (EUS) section will be providing primary support for Windows 95 and can assist agencies in developing

migration plans. EUS is continuing to develop a document containing ISD's experience and notes on installing and running Windows 95. This document is still a work-in-progress, and is updated daily. Contact Denny Knapp as described below to be placed on a mailing list of recipients of this document.

For further information or assistance contact Denny Knapp of End User Systems Support at 444-2072, ZIP!, or E-Mail at [dknapp@mt.gov](mailto:dknapp@mt.gov).

## Montana Natural Resource Information System Receives International Award

*Helena, MT* — The Natural Resource Information System (NRIS), at the Montana State Library was recently awarded an Exemplary Systems in Government award by the Urban and Regional Information Systems Association. The award is "...for international recognition of exceptional achievement in the application of information technology that has improved the delivery and quality of government service."

NRIS was recognized for establishing a node on the National Spatial Data Infrastructure (NSDI). The NRIS node allows Internet users from anywhere to obtain



natural resource information, documents, graphics, and digital map data directly from the NRIS Internet site. Users can easily search almost 500 databases for the information that best meets their needs.

As the first state node on the NSDI, NRIS is helping to establish a national Internet clearinghouse of natural resource and map data. More than 40,000 users from around the world have visited the NRIS Internet site over the last year. The address for the NRIS site is:

<http://nris.mt.gov>.

Established in 1985 by the Montana Legislature, NRIS was designed to simplify the task of acquiring natural resource information. It has evolved into a nationally-recognized information clearinghouse that is being used as a model by other states.

NRIS currently comprises three units. The Montana Natural Heritage Program focuses on biodiversity information: plants, animals and natural communities, emphasizing those that are rare, threatened or endangered. The Water Information System is a starting point for persons needing to know about topics such as water quality, groundwater, surface water, water rights, climate data, and more. The Geographic Information System provides map data and technical assistance for the growing number of users of computerized mapping programs.

Collectively, these programs have been a catalyst for public and private sector collaboration and information sharing — saving time and effort in development, planning and resource management.

For further information contact Pam Smith of Montana State Library at 444-5354, ZIP! or E-Mail at [psmith@mt.gov](mailto:psmith@mt.gov).

## Legislative Information Options Seminar

The Legislative Services Division will present a free seminar entitled "Legislative Information Options for State Agencies" on October 22 and again on October 24 in Room 104, State Capitol, from 1:30-4:30 pm.

The purpose of the seminar is to inform agencies about the various methods available to identify and track bill drafts and introduced bills that are of interest to that agency.

The seminar will include a handout and several demonstrations using an overhead projector.

Due to space limitations, advance registration is required. Registration by electronic mail is preferred. Specify the date desired (October 22 or October 24) and the names of the people that will be attending, and E-Mail to Jim Gordon. Agencies are requested to limit their participants to a maximum of five people.

Each agency that wishes to attend is encouraged to include someone from their data processing support staff in their contingent.

For further information contact Tom Mulvaney of Legislative Council at 444-3064, ZIP! or E-Mail at [tmulvaney@mt.gov](mailto:tmulvaney@mt.gov).

## E-Mail & Groupware Strategic Direction \*UPDATE\*

If you had an opportunity to read the E-Mail/Groupware article in the July *News & Views*, you are aware that the state is involved in a process to replace the current state E-Mail system. A subcommittee, headed by Hank Trenk, was formed by Information Technology Managers Group (ITMG) to recommend an appropriate path to a new E-Mail/Groupware solution.

The subcommittee has been diligently meeting for the past year, and is now wrapping up it's recommendation for ITMG. The recommendation includes moving forward with a Request For Proposal (RFP) to acquire a solution to replace our existing E-Mail infrastructure. Once the recommendation moves past ITMG a RFP team will be formed, which will include key agency and ISD personnel.

Tentative schedule has the RFP being released in November 1996, with an "intent to award" date sometime in April-May of 1997. Following the "intent to award" milestone, there will be a 1-2 month pilot test period, which upon successful completion, would result in a final award. Earliest deployment of the selected solution would be mid to late summer of 1997. The deployment process hopefully would be completed by the end of the next biennium.

For further information contact Terry Kramer of End User Systems Support at 444-2556, ZIP!, or E-Mail at [tkramer@mt.gov](mailto:tkramer@mt.gov) or Hank Trenk of the Legislative Council at 444-3064, ZIP!, E-Mail at [htrenk@mt.gov](mailto:htrenk@mt.gov).

# CAPS and SEARCHS Job Scheduler Implementation

As mentioned in the September 1996 issue of *News & Views*, the System for the Enforcement and Recovery of Child Support (SEARCHS) and the Child and Adult Protective Services (CAPS) system are now using the new CONTROL-M job scheduler system for running their nightly batch production jobs. Both systems are maintained by BDM Technologies for the Department of Public Health and Human Services (DPHHS).

Two people from each project plus all three of our production control operators attended ISD's job scheduler classes.

An implementation team, which met every two weeks, was formed to plan the course of action, set standards, and determine the scheduler definitions. We wanted to keep the implementation as simple as possible and decided against changing any JCL or PROC libraries, if possible. Many of the jobs still had TYPRUN=HOLD in them and initially they were left that way. This meant that the operators still had to release each of the jobs, but it was a good way to watch the scheduler go one step at a time. After a few days, when we were satisfied that things were running properly, the TYPRUN=HOLD statements were removed from all the JCL.

When the job flow for the night was planned, we attempted to schedule

as many jobs concurrently as possible. If any database deadlocks or contention occurred, the CONTROL parameter was added to the scheduler definition which allows the jobs to get exclusive or shared locks while running. If one job got in with an exclusive lock, the other jobs with that same CONTROL definition would wait until that exclusive lock was freed. A certain amount of research is necessary to determine dependencies between your programs and jobs. We talked to each programmer responsible to make sure our definitions were as correct as possible.

All of the security is hung off the owner user id which is in each individual job definition. We set up two separate owner user ids for CAPS and SEARCHS, and hung all of the ACF2 security off these new IDs. Before using the new scheduler, the BDM operator user id had security for both systems, but we wanted to separate the security definitions.

CAPS was implemented first because that was a smaller job stream. A number of ACF2 security errors were encountered that had to be resolved as the scheduler worked its way through our nightly schedule of jobs. But now CAPS has been running smoothly for almost two months. Based on the experiences with CAPS, we built the SEARCHS scheduler definitions. We scanned all of the SEARCHS JCL and PROCs for all of the datasets used so that ACF2 security could be checked before trying to run the scheduler on SEARCHS.

SEARCHS used to get done about 10:00 pm every night but now, on a normal night, processing is completed by 8:30 pm. This is about a 50% improvement. The operators

used to record start and stop times on each job, but now a scheduler report does this automatically. Jobs cannot be run out of sequence because the scheduler definitions will not allow it to happen. The job scheduler changes its day at noon every day by running a set of utilities jobs. This is when your system's scheduler definitions get put into what the job scheduler calls its 'active job file'. We set up our own utility job to run at 12:30 pm, a half hour after the job scheduler runs its own utility job. This utility job does the following: 1) runs a report showing the start and stop times of jobs run the night before; 2) runs a report identifying what is scheduled to run in tonight's batch run; 3) runs a report that shows the conditions and job flow of all the scheduler definitions; 4) cleans out the override JCL library which is used for recovery JCL during a nightlyabend or problem; and 5) adds manual conditions on any MAYBE conditions that were not satisfied.

This utility job is an important part of verifying that the job scheduler is setup to run correctly that night. The job sits out in the SDSF output queue so any programmer on the project can access it. Oncall programmers are given all of the information they need to know on jobs they could get called on that night. If there is something missing in the schedule, it can be corrected that afternoon before the batch nightly job stream begins.

Overall we are very happy with the new job scheduler. We wish it had been here a few years ago. A job scheduler is a critical piece of any large batch production environment. Once other systems start using the scheduler, we can tie our various interface jobs to jobs running in other department's job

streams. This will further reduce operator intervention.

This article was contributed by Tom Strauch of BDM.

For further information on the job scheduler, contact Mike Krings of Production Services at 444-2403, ZIP! or E-Mail at mkrings@mt.gov.

## Mainframe Upgrade

YES, another processor upgrade - second year in a row. But why?, you might ask. Our ES/9000 821 mainframe processor saw a 34 % growth in CPU utilization in fiscal year 1996. Interestingly, customers' projections had forecasted only a 2% growth for the same time period. Prime shift (8 am to 5 pm) usage just seems to keep on growing. (See related Mainframe CPU utilization article).

A bid for an IBM ES/9000 831 was sent out at the beginning of September. The installation for the new processor is scheduled for Nov. 9 - 11 (Veteran's Day weekend). The 831 is a single-sided water-cooled triadic processor which means that there are 3 central processors that run together but are not separable. The 831 will have 1024 MB of central storage and 2048 MB of expanded storage. This upgrade will double the storage of the current 821 mainframe. The new processor will have the same channel configuration as the current one; 32 ESCON and 32 parallel channels. The processing speed of a 831 is rated by IBM at 169 MIPS (millions of instructions per second). This is a 44% increase over the current 821 and a 99% increase over the 3090-400J which we had two years ago.

This upgrade will improve performance for our online CICS and IDMS applications and provide support for the new mainframe ORACLE database applications. The MVS/ESA 4.3 Operating System will continue to run on this new mainframe so there will be no user changes required. Look for articles in the December *News & Views* for performance statistics on this new processor.

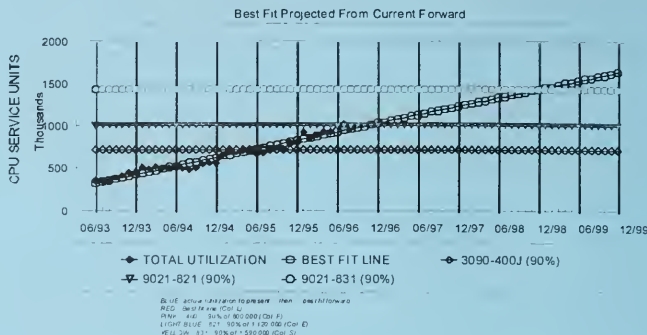
For further information contact Robin Anlian of Operating Systems Support at 444-2898, ZIP! or E-Mail at ranlian@mt.gov.

## Mainframe Utilization

Utilization of the state mainframe computer continues to grow at significant rates. For FY96 the total utilization rose 35%. This far exceeds the level of growth that was forecast by the mainframe clients and has caused ISD to seek additional CPU resources ahead of the originally planned upgrade date.

Across the board increases have occurred in practically every major

### ACTUAL FROM 06/93 TO PRESENT



billing unit.

For example:

TSO utilization is up 46%

IDMS DWS/SEARCHES is up 79%

IDMS TEAMS is up 43%

IDMS REVENUE is up 53%

CICS is up 71%

These are significant utilization increases. The attached graph shows our growth since June of 1993 and projects that forward into the future. Horizontal lines have been added to show the capacity of our previous CPU, the current CPU and our projected CPU. As you can see, our current CPU is approaching capacity and the planned upgrade should bring us to November/December 1998. Of course this is only a projection based on past utilization and actual utilization could vary significantly.

For further information contact Craig Smith of Operating Systems Support at 444-3458, ZIP! or E-Mail at csmith@mt.gov.



## Disk Upgrade

ISD has installed 56 volumes of 3390 Model 3 disk volumes to replace 64 volumes of 3390 Model 2 disk volumes, and provide space for dataset growth. The data on volumes 3390W/, 3390X/, 3390Y/ and 3390Z/ will be moved to the new volumes and the old disk units will be removed by the end of October. The Model 3s have 2.8 GBs per volume compared to 1.9 GBs for the Model 2 volumes. This brings total disk storage to 363.3 GBs for the mainframe. We will be moving 30% of our disk data in the next month.

User data has or will be moved the weekend of October 5 - 6, and you should have received notice of the datasets to be moved the week of September 30. Reports will be sent after the actual move has taken place. In some cases your JCL will require updating. IDCAMS define statements will need the volume updated. Allocation of generation datasets will also need to be updated if the datasets are moved, or, if you are allocating datasets to a particular volume that is being replaced, you will need to update the JCL. JCLFIXER procedure is a helpful way to look for and update disk volume information.

If you have questions or concerns about particular datasets, or what's moving where please contact Frances Greene of Operating Systems Support at 444-2889, ZIP! or E-Mail at [fgreene@mt.gov](mailto:fgreene@mt.gov).

## COBOL for MVS: What is it?

COBOL for MVS is IBM's latest version of the COBOL/370 compiler. It was developed to provide access to object-oriented programming in COBOL and the capability to run in a common run-time environment called LE/MVS. Other enhancements were included such as new intrinsic functions and storage features.

LE/MVS provides a single language run-time environment for COBOL, PL/1, FORTRAN, and C. Also provided are common condition handling features, improved inter-language communication, reusable libraries, and a set of shared callable services. COBOL for MVS must run under LE/MVS.

The following table gives an overview of the functions available with each release of the IBM COBOL compilers.

OS/VS COBOL	VS COBOL II	COBOL FOR MVS
		Extensions for Object-oriented Cobol C Interoperability Intrinsic Functions Amendment to 85 Standards  Support for: LE/MVS Debug tool
	COBOL 85 Standard No intrinsic functions Structured Programming National Language Improved CICS interface 31-Bit addressing Reentrancy, Fast Sort, Optimizer, SAA Flagging Interactive Debugging (Full-screen mode)	COBOL 85 Standard  Structured Programming National Language Improved CICS Interface 31-Bit addressing Reentrancy, Fast Sort, Optimizer, SAA Flagging Interactive Debugging (Full-screen mode)
COBOL 74 Standard 74 STD FIPS Flagging Dynamic Loading Batch Debugging Interactive Debugging (line mode)	COBOL 74 Standard 85 STD FIPS Flagging Dynamic Loading Batch Debugging Interactive Debugging (line mode)	COBOL 74 Standard 85 STD FIPS Flagging Dynamic Loading Batch Debugging Interactive Debugging (line mode)

The following advantages can be expected when using COBOL for MVS:

*Year 2000 capabilities.* New applications can take advantage of 4-digit year intrinsic functions and existing applications can use LE/MVS callable services in conjunction with COBOL for MVS intrinsic functions to interpret 2-digit year data as 4-digit year data.

*Object-oriented programming.* COBOL for MVS provides extensions which enable you to create object-oriented COBOL programs.

*IBM support.* Any future performance improvements or language improvements will only be applied to the COBOL for MVS compiler.

**Error Recovery Options.** Application-specific error-handling routines intercept program interrupts, abends, and other software-generated conditions for error recovery.

High precision math routines will be available to COBOL applications through the LE/MVS environment callable services.

**Performance.** Faster dynamic and static calls. Faster inter-language calls.

**Standards adherence.** COBOL for MVS is written to conform to the latest amendment to the COBOL 85 standards (intrinsic functions).

**New options.** New compile and runtime options allow you to optimize, define default currency symbols, obtain storage usage reports, and others.

There are two changes that may significantly affect current applications when they are compiled and run under COBOL for MVS:

1. **Application Termination Behavior:** The COBOL for MVS compiler was shipped with a default to produce a return code when a severe error is encountered instead of the abend. **This error handling characteristic was changed during installation, however, so that the abend condition will continue to be generated when applicable.**
2. **NORES Environment** is no longer available under COBOL for MVS. All COBOL for MVS programs are RES. Existing NORES applications are not affected unless you link edit them with LE/MVS or include a COBOL for MVS program with a NORES application.

The COBOL for MVS compiler is installed and ready for testing. The procedure names are: COBMUC, COBMUCG, COBMUCL, COBMUCLG, and COBMULG. The Panvalet procedures are: PVCBMC, PVCBMCG, PVCBMLG, and PVCBMLKD. The Computer Associates' CA-OPTIMIZER II product is not yet compatible with COBOL for MVS so optimization should be handled by the COBOL for MVS optimization option. The Xpeditor product is supported and can be accessed through the COBMUCLX procedure. The Report Writer Precompiler is compatible with COBOL for MVS but not the object-oriented feature.

If you would like more information on the COBOL for MVS compiler, contact Glen Stroop of ISD/S&B at 444-2910, ZIP! or E-Mail at [gstroop@mt.gov](mailto:gstroop@mt.gov) or Bill Ramsay of ISD/COB at 444-2902, ZIP! or E-Mail at [bramsay@mt.gov](mailto:bramsay@mt.gov).

## Benefits of Voice Mail Technology

*Properly applied, voice mail technology will:*

- **FREE THE RECEPTIONIST FROM THE TIME-CONSUMING CHORE OF TAKING DETAILED MESSAGES.** We think of it as eliminating the pink paper trail. It also allows the receptionist to respond more efficiently to other callers' needs.
- **ALLOW EMPLOYEES TO BE MORE RESPONSIVE TO CALLERS' NEEDS BY ALLOWING CALLERS TO LEAVE PRECISE, DETAILED**

**MESSAGES.** In your greeting, we suggest you encourage the caller to leave a detailed message. We also encourage receptionists who are transferring calls to an employee mailbox to let the caller know they will be able to give more detail in a *personal* message to the employee.

- **SERVE AS AN INDIVIDUAL MESSAGE CENTER FOR EACH EMPLOYEE ALLOWING 24 HOUR-A-DAY COMMUNICATIONS.** We strongly suggest voice mail users change their message daily! There are instances, for example, when an employee will be out for some time but will be checking and responding to messages regularly. Therefore, it is important to let the caller know if you, the user, are going to be returning their call in the near future. A quickie, *"I'm not in - please leave a message"* - does not cut it in the world of customer service! It takes less time to record a new greeting daily than it does to wait for your PC to come on line!
- **ALLOW EMPLOYEES TO LEAVE DETAILED MESSAGES FOR OTHER EMPLOYEES WITHOUT WASTING TIME SEARCHING FOR THEM OR WRITING NOTES.** A brief message was more appropriate when someone was on the other end of the phone line writing down your message but with Voice Mail detailed messages are more efficient because it prevents 'phone tag' and time delays.
- **REMOVE THE NEED FOR EMPLOYEES, FAMILY MEMBERS AND OTHER FAMILIAR CALLERS TO GO THROUGH THE RECEPTION CENTER BY ALLOWING DIRECT ACCESS TO EMPLOYEE VOICE MAILBOXES.** There are many agencies who still employ a main reception center for all calls but that center



certainly does not function efficiently when writing a dozen pink message slips for phone tag. When calls do come to the receptionist, she or he can simply advise the caller of the transfer to the voice mail for a *personal, detailed* message. It does work!

## ITAC Provides Internet Direction to ISD

At the September Information Technology Advisory Council (ITAC) meeting, the group heard reports from the Coordination Task Force and the Internet Services Policy Task Force. While Internet standards were not adopted, ITAC asked ISD to identify the Internet products it would support. Agencies using other products will not be supported by ISD.

Complete minutes of the meeting are available on the Value Added Server (GUEST\ITACINFO), the State Bulletin Board System (Agency / Administration / Information Services / Files / Advisory Groups) or by calling ISD at 444-2700.

## ITMG

The Information Technology Managers' Group (ITMG) meets monthly to focus on enterprise and agency technology issues at the management level. ITMG subcommittees are involved in a variety of projects.

## Operating Systems Subcommittee

The Operating Systems Subcommittee, chaired by Hank Trenk of the Legislative Branch, is working on the selection of a new E-Mail product for the enterprise.

The subcommittee is planning to present its report at the October ITMG meeting and begin the final selection process this fall.

## Enterprise Software Subcommittee

During discussions at the September meeting, the study of software distribution and network management tools was referred to the Enterprise Software Subcommittee, chaired by Steve Colberg of the Governor's Office.

## Internet Standards Subcommittee

An initial organizational meeting of this new subcommittee was held in August. The group is working with ISD and ITAC on enterprise Internet issues. Larry DeFrance, Department of Corrections, is chair.

For more information about meetings, dates and times contact ITMG chair Gregg Wheeler, of the Secretary of State's Office at 444-5382, ZIP! or E-Mail at gwheeler@mt.gov or Amanda Christen of ISD at 444-2700 or ZIP!.

## ZIP!Tips

## One-time Internet Send

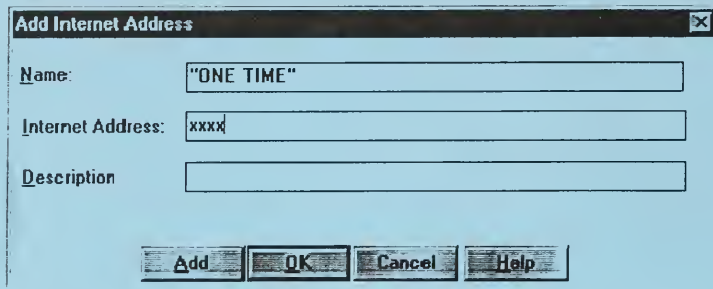
Have you ever needed to send a 'one time only' E-Mail to an Internet user? It seems cumbersome to add the user's name to your Personal Internet Address Book for a quick one-time send. Here is a tip on how to accomplish this task

■ **PROVIDE CONFIDENTIALITY FOR ALL MESSAGES.** Again, stress the personal or confidential ability to leave messages. The best way to keep the messages confidential is to not give your password to anyone. If you change your message to note that you will be gone, there is no need for anyone to get into your mailbox.

■ **ALLOW RETRIEVAL OF MESSAGES FROM ANY TOUCHTONE TELEPHONE ANYWHERE, AT ANY TIME OF THE DAY.** If we use our voice mailboxes efficiently, people will gradually lose their fear of leaving messages. Statistically speaking, the two main reasons people hate voice mail/answering machines/any voice Messaging service, are because the called party fails to respond in a timely manner and because the caller usually is intimidated (read scared) by having their voice recorded. The majority of that category are afraid they will sound silly with the rest worried that they will not be able to relay the information correctly. Callers will generally take a cue from our greeting; making our greetings clear and confident is very important.

Look for more articles and tips here in *News & Views* in the future.

For further information contact Clara Baer of Voice Operations at 444-2455, ZIP! or E-Mail at rbaer@mt.gov or Rita O'Neil of Voice Operations at 444-6846, ZIP! or E-Mail at roneil@mt.gov.



**Add Internet Address**

Name:

Internet Address:

Description:

Create a user named 'one-time' in your Internet Address Book as described below. Then, when you receive a message from the user, cut the Internet Address out of the message and paste it into the Address Field of the 'one-time' user. Now, create and send the message, attach a file, select recipients, switch address books and choose 'one-time'. Send the mail. It would then be wise to go back to your Internet Address Book and edit the 'one-time' selection by changing the address to xxx to prevent accidentally sending mail to the previous recipient).

*To cut and paste in Windows*, highlight the address, then click on Edit, Copy selection (CTRL C).



Open your Internet Address Book, and highlight the 'one-time' entry. Select the 'pencil' icon (View or change a selected item), then highlight the 'xxx' selection in the Internet Address field. Click on Edit, Paste (CTRL V) to paste in the address.

*To cut and paste in WIN95*, highlight the address, click on your right mouse button and select Copy. Now open your Internet Address Book and highlight the 'xxx' area. Click again with your right mouse button to select 'paste'.

Remember, Internet E-Mail via ZIP!Office does not require each user to have Internet access as ISD provides the access through an SMTP gateway. However, in order to send an attachment in ZIP!Office, you must have the ZIP!Office 'Internet' client - Version 1.26. If you click on File, Open, and see the 'Internet Address book' listed as an option below 'Regular Address book', you have the Internet Client.

If you are a ZIP!Mail user, you cannot send *Attachments* through the Internet, but can send E-Mail 'Notes'. From the Mail menu, select Send, What, Note... On the first line, type:

MHSTO:MHS:someone@somewhere.com

Hit Enter two times so that a blank line exists between the address and the actual body of the message. Type your message. Hit Escape and Recipients is highlighted on the next screen. Press Enter. 'Go to' is now highlighted; press enter. Type "Internet User" to go to that position in the Address Book. With it highlighted, press the space bar or type a "T" and select Ok. The Send option is highlighted on the next screen; press enter and your mail is sent.

For more information on Internet E-Mail contact Sue Skuletich of ISD/SSB at 444-1392, ZIP! or E-Mail at sskuletich@mt.gov.

## E-Mail On The Fly For Five Bucks

Portable ZIP!Office is available to any user who has a ZIP!Office in-tray residing on the Capitol Complex Backbone, E-Mail addresses ZIP02 through ZIP008. For \$5.00 a month a user is given access to this application which enables dial-up access to their in-tray from a remote workstation, such as a laptop equipped with a modem.

The advantage of having Portable ZIP!Office is that items are downloaded from your in-tray to the remote workstation for processing. E-Mail can also be created and uploaded for distribution. Even though you are out of the office you will still be in communication electronically.

To sign up, contact your ZIP!Office Administrator. They will enroll you as a Portable ZIP!Office user in the ZIP!Office application software and register with ISD for billing purposes. The Portable ZIP!Office software must be installed on the remote workstation.

Briefly, this is how to get going. When starting Portable ZIP!Office for the first time be prepared to answer some questions such as the ubiquitous User ID and Password as well as your Address, for example ZIP02. In addition you must know the COM port that your modem is using (usually Port 2), the modem speed and the phone number of 406-444-5640.

From the pull-down menu select File and Portable ZIP!Office. Go back up to the toolbar to Options. Make sure Automatic disconnect (dial-up connection terminates after the mail exchange) has a check mark in front of it then Session activity...

should be selected next. **Receive mail** should be selected. **DO NOT SELECT "Update Address Book"**. It is recommended that you also not choose **"Delete from ZIP!Office home system"**. Although we like you all to keep your in-trays cleaned out, having Portable ZIP!Office delete ALL items for you is probably not something you want to do. **Local calendar** should likewise be selected. OK out of that window after the options are set and then click on **Connect now** to start the process. The very first time you log in, **"Your Password has Expired"** will pop up to enable you to maintain your password security. Once you see the message **"Mail exchange complete"** in the Communications activity window a successful transmission has occurred.

Be sure to test out the process more than ½ hour before you are leaving on a plane to faraway places. It is easier and cheaper to troubleshoot problems while you are still in Montana/Helena.

For further information contact Candace Hastings of ISD/SSB at 444-2858, ZIP! or E-Mail at [chastings@mt.gov](mailto:chastings@mt.gov).

## Portable ZIP!Office Modems Replaced

ISD recently replaced the desktop Practical Peripheral modems used for connecting to Portable ZIP!Office with rack mount Multi-Tech modems. The Multi-Tech modems offer more configuration options and should alleviate past connection problems related to the Practical Peripherals.

If you experience connection problems with Portable ZIP!Office please call the ISD Help Desk at 444-2000. If you have any problems or questions concerning Portable ZIP!Office contact Sue Skuletich of ISD/SSB at 444-1392, ZIP! or E-Mail at [sskuletich@mt.gov](mailto:sskuletich@mt.gov) or Candace Hastings of ISD/SSB at 444-2858, ZIP! or E-Mail at [chastings@mt.gov](mailto:chastings@mt.gov).

## Win 95 - Use the Right Mouse Button For A Change

Many thanks to Brian Livingston of *Infoworld* for the following ideas and tips.

One of the most evident changes you will find when upgrading from Windows 3.1 to Windows 95 is that Windows 95 uses the right mouse button as much as it uses the left - something unheard of in most PC programs until now. After becoming familiar with Windows 95, you will find one rule of thumb is "When in doubt, right click." Many of 95's right-click features are most evident in the new Windows 95 Explorer and Desktop. Right-clicking almost any object in either place reveals a right-mouse button menu. This is called a context menu, because it changes based on the status of the item you clicked - the type of file, for example. The context menu may display actions such as *Open*, *Copy*, *Paste*, *Delete*, and the ever-present *Properties* (to see an item's settings, and so on). One of the least understood, and therefore most neglected, functions on the Win95 context menus is the *Send To* item.

When you install Win95, the *Send To* submenu displays only a few

choices. You can *Send* a file to a diskette (such as the A: drive), a Fax Recipient (if you installed Windows' fax capabilities), and so on. Most Windows users would benefit greatly from adding many more items to the *Send To* list. Once you understand the basic workings of this function, two or three mouse clicks will do things that would ordinarily require a lot of dragging and dropping.

What does *Send To* actually do? The act of sending an object (a file, say) to a destination is exactly the same as dragging that object from the Explorer and dropping it on the destination's icon. Right-clicking an object, then clicking *Send To* and the destination, eliminates the need to see both sides of a drag- and-drop action. A "destination" can be an application, a printer, the Desktop, a folder, even a drive on another computer you're networked to.

How do destinations get on the *Send To* list? The answer is that anything in the C:\Windows\Send To folder becomes a destination. Rather than placing applications, printers, and so on, in this folder, you place shortcuts in the *Send To* folder. One way to do this is to right-drag an application file name from its original folder and drop it on the *Send To* folder. When a context menu pops up, click *Create Shortcut Here*.

It's a lot easier to add items to the *Send To* menu, however, if you make the *Send To* folder itself a destination on the *Send To* menu. This way, you can right-click an application file, click *Send To*, and then click *Send To Folder*. The application will immediately show up on the list the next time you use *Send To*. To put the *Send To* folder on the *Send To* menu, first run the Explorer, click *View*, *Options*, and make sure *Show All Files* is on. Then select C:\Windows\Send To in the left pane of an Explorer window.



Right-click any empty space in the right pane, then click *New*, *Shortcut*. Type C:\Windows\Send To, click *Next*, type *Send To Folder*, then click *Finish*.

Good things to put on your *Send To* menu are Notepad, WordPad, your word processor, your **unzip** program, and so on. Folders are an exception to this method. "Sending" folders within the same drive actually moves them, instead of creating a shortcut. You should use the usual right-drag method to create shortcuts in the *Send To* folder to other folders.

One way to get a printer onto your *Send To* list is to right-drag its icon from the Control Panel's Printers window to the C:\Windows\Send To folder. You can even have the same printer show up twice on the *Send To* menu with different settings – for instance, draft vs. presentation quality. To do this, double-click the *Add New Printer* icon in the Printers window, then select a printer model you already have installed. When Windows asks if you want to "replace" or "keep" the existing driver, reply "keep" (unless you really do possess an updated driver). After you finish installing this "new" printer driver, you should have a Copy 2 icon in your Printers window.

Right-click this icon, click *Properties*, and configure this copy of your printer driver any way you like. Then right-drag it into the *Send To* folder to create a shortcut to it. Your new, alternate printer settings will immediately appear on your *Send To* menu the next time you right-click a document in the Explorer.

There are some caveats. Remember that when you drag a file to a folder

in the Explorer, the file is moved if the folder is on the same drive, but it is copied if the folder is on a different drive. *Send To* works the same way with files sent to folders. Exception: Executable files that you *Send To* the Desktop or any part of the Start Menu are not moved. Instead, a shortcut is created (which is actually what you want). Another thing: Parameters (such as /P) are ignored in a *Send To* command line.

If you have questions about this article, or Windows 95 in general, contact Denny Knapp of End User Systems Support at 444-2072, ZIP! or E-Mail at [dknapp@mt.gov](mailto:dknapp@mt.gov).

## MonSys – a Free Windows 95 Utility

MonSys, a free utility from *PC Magazine*, provides improvements to the System Monitor program that comes with Windows 95 by placing statistics in different categories on separate display pages and by providing a multitude of features to customize their display. Following are excerpts from the *MonSys.Txt* file that accompanies the *MonSys* files.

Windows 95 breaks down the performance statistics it supplies into several categories, such as Kernel, Memory Manager, and File System. *MonSys* assigns a separate display page to each category. Each item in a category is represented by a self-contained display component on the appropriate page. If a particular item's value remains the same for 5 minutes, *MonSys* demotes it to the last position on the page. If all of the items on a given

page have been demoted, *MonSys* hides the entire page from view. Thus the performance data is automatically organized so that the most active data floats to the top. Selecting Choices on the Options menu lets you turn these view-filtering features on and off.

You can customize the display of each item by right-clicking on it and choosing from the resulting context menu. Your settings will be stored in the Registry and reused the next time *MonSys* starts. One menu item sets all data items on the current page to the same display settings as the one that triggered the context menu, and another does the same for all items on all pages. The What's This? item on the context menu displays a Windows 95-supplied description of the particular performance statistic.

When not displaying statistics, *MonSys* resides in the system tray, which is located at the right or bottom end of the Taskbar, depending on the Taskbar's orientation. If *MonSys* is not active, it displays itself as a sleepy-eyed icon; if the program is active, the icon is a face with wide-awake eyes that are constantly looking around. Right-click on the icon to bring up a menu that lets you start monitoring, stop monitoring, or exit the program.

*MonSys* (VERSION 1.00)  
Copyright © 1996 Ziff Davis Publishing Company, by Neil J. Rubenking, First Published October 8, 1996.

If you would like a copy of *MonSys*, the files are available on the ISD Value Added Server at  
`\\guest\windows\winaddon\95addons\monsys.`

If you don't have access to the VAS, or have questions about it, contact Denny Knapp of End User Systems Support at 444-2072, ZIP! or E-Mail at [dknapp@mt.gov](mailto:dknapp@mt.gov).

# State Training Statistics

## at the Helena College of Technology

The State Training Program continues to grow and expand to meet the technical needs of State employees. The program saw a 31% increase in the number of students in FY96 over FY95. See graph below.

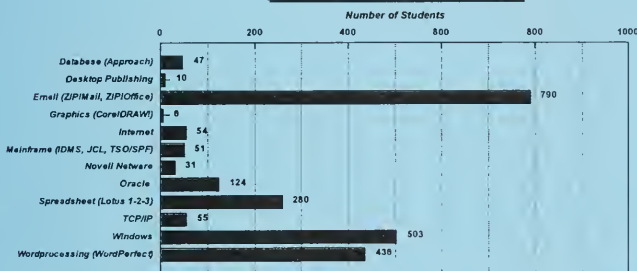
The Oracle database curriculum has expanded, and the HCT also offers Lotus Approach database training.

This fall sees the addition of Windows 95 training and three flavors of Internet training - a half day introductory class for browsers, a 2-day class oriented toward support personnel and an HTML programming class.

Questions or suggestions for the program may be directed to Wendy Wheeler of ISD at 444-2856, ZIP! or E-Mail at [wwheeler@mt.gov](mailto:wwheeler@mt.gov).

**Student Enrollment by Topic**

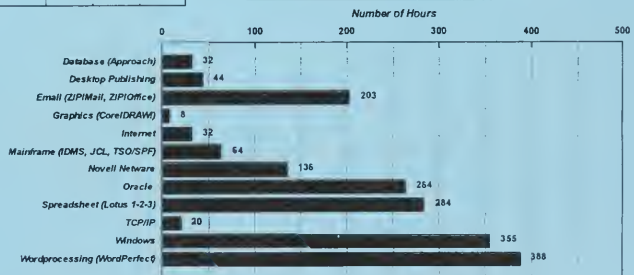
FY96



Total Student Enrollment for FY96: 2367

**Classroom Hourly Usage by Topic**

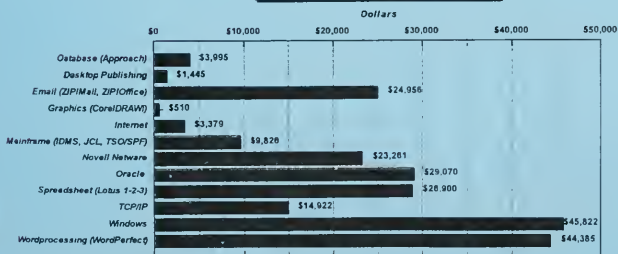
FY96



Total Hours of Classroom Usage: 1830

**Class Expenditures by Topic**

FY96



Total Training Expenditures: \$230,291

# Training Calendar

This schedule has been assembled by the Helena College of Technology of the University of Montana. If you have any questions about enrollment, please call 444-6821.

All classes will be held at the Helena College of Technology at 1115 N. Roberts. Please note that these costs are subject to change each July 1st.

To enroll in a class, you must send or deadhead an enrollment application to the State Training Center, HCT, Helena, MT 59601. If you have questions about enrollment, please call 444-6821. *Once you enroll in a class, the full fee will be charged UNLESS you cancel at least three business days before the first day of class.* HCT is also willing to schedule specific classes by request from state agencies.

	<u>DATES</u>	<u>COST</u>	<u>LENGTH</u>
<b>Data Base Classes</b>			
Intro. To Oracle	November 6,7,8	255.00	3
Oracle Forms	November 25,26,27	255.00	3
Prereq. Intro to Oracle			
Oracle End User Tools	October 10	85.00	1
Prereq. Intro. to Windows	October 22		
	December 16		
Oracle Reports	October 7, 8	170.00	2
Prereq. Intro to Oracle	December 9,10		
<b>Data Network/Mainframe Classes</b>			
Designer 2000	December 2 - 6	850.00	5
	Price may vary depending on instructors expenses		
JCL	October 7,8,9	255.00	3
	November 12,13,14		
TSO/SPF	October 28	85.00	1
HTML	November 6,7	170.00	2
<b>Microcomputer Classes</b>			
Introduction to Windows	October 1	85.00	1
	October 15		
	November 1		
	December 2		
Windows 95(2)	October 30am&pm	42.50	1/2
	November 20am&pm		
	December 9 am&pm		
ZIP!Office	October 9 (am)	Free	1/3
Prereq. Intro to Windows	November 8 (am)		
	December 4 (am)		
Intro. to Internet	October 31 am&pm	42.50	1/2
Prereq. Intro to Windows	December 11am&pm		
Internet	October 28, 29	170.00	2
Prereq. Intro to Windows	November 12,13		
Corel Draw	November 26	85.00	1
<b>Word Processing Classes</b>			
WordPerfect 6.1 for Windows	October 21,22	170.00	2
Prereq. Intro to Windows	November 18,19		
WordPerfect 6.1 Conv.Windows	October 2	85.00	1
Prereq. Intro to Windows	October 23		
	November 25		
	December 18		
WordPerfect 6.1 for Macros	October 24	85.00	1
Prereq. WP 6.1 for Windows			
WordPerfect 6.1 Tables & Merge	December 12 (am)	42.50	1/2
Prereq. WP 6.1 Conv. to Windows			
Desktop Publishing W/ WP 6.1	December 4,5	63.75	1 1/2
Prereq. WP 6.1 for Windows			
<b>Spreadsheet Classes</b>			
Lotus for Windows	November 18,19	170.00	2
Prereq. Intro to Windows	November 21,22		
Lotus Conv. for Windows	October 30	85.00	1
Prereq. Intro to Windows	December 3		
Lotus Approach	October 16	85.00	1
Prereq. Intro to Windows	November 20		
	December 13		
Lotus Freelance	November 14	85.00	1

\* Date has changed from previous schedule  
Prerequisites may be met with consent of Instructor.



**ISD Class Enrollment Application**

COMPLETE THIS APPLICATION IN FULL AND RETURN  
IT AT LEAST ONE WEEK PRIOR TO THE FIRST DAY OF CLASS

**COURSE DATA**

Course Requested: \_\_\_\_\_

Date Offered: \_\_\_\_\_

**STUDENT DATA**

Name: \_\_\_\_\_

Soc. Sec. Number (for P/P/P): \_\_\_\_\_

Agency &amp; Division: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Phone: \_\_\_\_\_

How have you met the required prerequisites for this course? Explain, giving the class(s) taken,  
tutorial completed, and/or experience.

\_\_\_\_\_

\_\_\_\_\_

**BILLING INFORMATION/AUTHORIZATION MANDATORY**

User ID: \_\_\_\_\_

Agency#: \_\_\_\_\_

Authorized Signature: \_\_\_\_\_

**FULL CLASS FEE WILL BE BILLED TO THE REGISTRANT UNLESS  
CANCELLATION IS MADE THREE BUSINESS DAYS BEFORE  
THE START DATE OF THE CLASS.**

**DEADHEAD COMPLETED FORM TO:  
COMPUTER TRAINING CENTER  
HELENA, COLLEGE OF TECHNOLOGY  
OF THE UNIVERSITY OF MONTANA  
PHONE 444-6800 FAX 444-6892**



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Information Services Division (406) 444-2700



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Department of Administration  
Information Services Division



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Information Services Division (406) 444-2701



## MAILBack

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Information Services Division  
PO Box 20013  
Mitchell Building, Room 229  
Helena, MT 59620-0113



## SURFBack

via Internet



## ZIP!Back

via ZIP!Mail, ZIP!Office, TAO

## Editor's Notes

### Published By...

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This newsletter is dedicated to educating and informing the reader with pertinent ISD news. Materials may be reproduced without permission. Alternative accessible formats of this document will be provided upon request.

### Editorial Submissions...

If you would like to submit an article to ISD News & Views for publication, please send it to Trapper Badovinac, preferably via ZIP!. Please have your article in by the 15th of the month for inclusion in the following month's newsletter.

### ISD Customer Support Center...

Got a problem (opportunity)? Do you need ISD assistance for any of your information processing requirements? Then contact the ISD Customer Support Center

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### Editor

Trapper Badovinac (444-4917)



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